CLAIMS

What is claimed is:

1. A method of inducing pancreatic hormone production in a subject, said method comprising administering to a subject in need thereof a compound which increases PDX expression or activity in an amount sufficient to induce pancreatic hormone production in said subject.

2. The method of claim 1, wherein the compound is a PDX polypeptide, a nucleic acid encoding a PDX polypeptide, or a nucleic acid that increases expression of a nucleic acid that encodes a PDX polypeptide.

3. The method of claim 2, wherein said nucleic acid encoding a PDX polypeptide is a DNA molecule.

4. The method of claim 2, wherein said nucleic acid encoding a PDX polypeptide is present in a plasmid.

5. The method of claim 2, wherein said nucleic acid encoding a PDX polypeptide is present in a viral vector.

6. The method of claim 2, wherein said nucleic acid encoding a PDX polypeptide is encapsulated in a virus.

7. The method of claim 6, wherein said virus is hepatotropic.

8. The method of claim 1, wherein said pancreatic hormone is selected from the group consisting of insulin, glucagon and somatostatin.

9. The method of claim 1, wherein said pancreatic hormone is insulin.

10. The method of claim 1, wherein administering said compound increases hepatic insulin levels in said subject.

11. The method of claim 1, wherein administering said compound increases serum insulin levels in said subject.

12. The method of claim 1, wherein the subject is a rodent or human.

13. The method of claim 1, wherein the compound is administered to the subject in association with a transfection agent.

14. The method of claim 1, wherein the administering is by a route selected from the group consisting of intraperitoneal, subcutaneous, nasal, intravenous, oral and transdermal delivery.

15. The method of claim 1, wherein the administering is intravenous.

16. A method of a treating a pancreatic associated disorder in a subject, said method comprising administering to a subject in need thereof a therapeutically effective amount

of a compound which increases PDX expression or activity in said subject, thereby treating said pancreatic associated disorder in said subject.

17. The method of claim 16, wherein said pancreatic disorder is diabetes.

18. A method of inducing or enhancing a pancreatic islet cell phenotype in a cell, said method comprising contacting said cell with compound which increases PDX expression or activity in an amount sufficient to induce or enhance pancreatic islet cell phenotype in said cell.

19. The method of claim 18, wherein said cell is a pluripotent stem cell.

20. The method of claim 18, wherein said cell is a hepatic stem cell.

21. The method of claim 18, wherein said cell is a hepatocyte.

22. The method of claim 18, wherein the cell is provided *in vitro*.

23. The method of claim 18, wherein the cell is provided *ex vivo* from a mammalian subject.

24. A method of inducing pancreatic hormone production in a subject, said method comprising:

a) providing a cell capable of expressing a pancreatic hormone;

b) contacting said cell with a compound which increases PDX expression or activity in an amount sufficient to increase pancreatic hormone production in said cell; and

c) introducing said cell into said subject,

thereby inducing pancreatic hormone production in said subject.

25. The method of claim 24, wherein said pancreatic hormone is selected from the group consisting of insulin, glucagon and somatostatin.

26. The method of claim 24, wherein said pancreatic hormone is insulin.

27. The method of claim 24, wherein administering said compound increases hepatic insulin levels in said subject.

28. The method of claim 24, wherein administering said compound increases serum insulin levels in said subject.

29. A method of inducing a pancreatic islet gene expression profile in a subject, said method comprising administering to a subject in need thereof a compound which increases PDX expression or activity in an amount sufficient to induce pancreatic islet gene expression in said subject.

30. The method of claim 29, wherein said pancreatic islet gene is selected from the group consisting of insulin, glucagon somatostatin and proinsulin convertase 1/3.

31. A pharmaceutical composition comprising a compound of which increases PDX expression or activity and a pharmaceutically acceptable carrier.

32. The method of claim 31, wherein the compound is a PDX polypeptide, a nucleic acid encoding a PDX polypeptide, or a nucleic acid that increases expression of a nucleic acid that encodes a PDX polypeptide.